



**REQUEST FOR INFORMATION (RFI) No. JLF-2664-03012022**

**BLANKET CONTRACT SUBCONTRACTOR SERVICES**

**DRAFT STATEMENT OF WORK**

- I. The Subcontractor shall furnish hours and material in support services requested by JPL flight projects, research tasks, and investment efforts.
  - a. The requested services in support of the design, development, implementation, modification, and maintenance of custom measurement and test systems for space flight hardware may include, but are not limited to the following:
    - i. Engineering services to define and formulate test system architecture and requirements.
    - ii. Design, assembly, test, and delivery of custom EGSE cables built with and without quality clauses which would enable use in thermal vacuum environments.
    - iii. Design, assembly, test, and delivery of custom EGSE chassis, boxes, and test fixtures.
    - iv. Design, simulation, analysis, and delivery of custom digital, analog, and/or mixed-signal electronic circuit designs.
    - v. Schematic capture of digital, analog, and/or mixed-signal designs, as well as wiring diagrams, cable drawings, and/or assembly drawings in compliance with JPL's Engineering Drawing Practices, Rev. K (JPL DocID: 35596), not attached.
    - vi. Printed Circuit Board (PCB) layout of engineering schematics in compliance with JPL's Spacecraft Electronic Packaging/Cabling Design and Fabrication, Rev. R (JPL DocID: 35120), not attached.
    - vii. Design, simulation, and delivery of custom Field Programmable Gate Array (FPGA) Register-Transfer Level (RTL) Hardware Description Language (HDL) code written in Verilog, VHDL, or LabVIEW FPGA.
    - viii. Design, development, testing, delivery, and maintenance of EGSE software written in LabVIEW, LabVIEW Real-Time (RT), and other languages.
    - ix. Development and delivery of Interface Failure Modes and Effects Analysis (I/F FMEA), Thermal Analysis, and Tip-Over Analysis for Electrical Ground Support Equipment (EGSE).

- x. Development and delivery of EGSE User's Guides
  - xi. Procurement, programming/configuration, and incorporation into larger systems of Commercial-Off-The-Shelf (COTS) hardware and software products as well as Modified-Off-The-Shelf (MOTS) hardware and software products to meet specific JPL project/task needs.
- b. The requested services in support of the design, development, and implementation of prototype (PT), Engineering Model (EM), and Flight Model (FM) hardware may include, but are not limited to the following:
  - i. Engineering services to define and formulate requirements.
  - ii. Design and delivery of custom digital, analog, and/or mixed-signal electronic circuit designs.
  - iii. Printed Circuit Board (PCB) layout of engineering schematics in compliance with JPL's Spacecraft Electronic Packaging/Cabling Design and Fabrication, Rev. R (JPL DocID: 35120), not attached.
  - iv. Development and delivery of Worst-Case Analysis (WCA).
  - v. Electronic and mechanical prototyping.
- c. These services shall be provided in the form of Subcontract Work Orders (SWO) to be created as required by JPL.
  - i. Each SWO will have an assigned technical lead, document the requested work effort and deliveries, and identify what JPL will provide.
  - ii. The subcontractor shall provide a cost estimate breakdown for each SWO IAW JPL's template which includes a statement of assumptions and risks.
  - iii. Subcontractor reporting on each SWO shall include written weekly status reports to the technical leads and attendance/presentation at meetings/reviews as requested.